

**Montana Board of Oil and Gas Conservation  
Environmental Assessment**

**Operator:** Continental Resources, Inc  
**Well Name/Number:** Smart 1-23  
**Location:** SW SW Section 23 T26N R55E  
**County:** Richland, MT; **Field (or Wildcat)** W/C

**Air Quality**

(possible concerns)

Long drilling time: No, 30 to 40 days drilling time.

Unusually deep drilling (high horsepower rig): No, 12,150' TD Red River Formation well.

Possible H<sub>2</sub>S gas production: Yes

in/near Class I air quality area: No

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

Air quality permit (AQB review)

Gas plants/pipelines available for sour gas

Special equipment/procedures requirements

Other: \_\_\_\_\_

Comments: No special concerns – using triple rig to drill to 12,150'.

**Water Quality**

(possible concerns)

Salt/oil based mud: Yes, freshwater and freshwater mud system on surface hole and oil based saltwater mud system on mainhole.

High water table: No

Surface drainage leads to live water: No, location is close to an unnamed ephemeral tributary drainage to Garden Coulee, an ephemeral drainage, which is a tributary to Hardscrabble Creek. This location lies next to this unnamed ephemeral drainage.

Water well contamination: No, water wells are at least 1/2 mile away or further, deepest water well nearby is 260' in depth. Surface hole will be drilled with freshwater and freshwater muds. Surface casing will be cemented to surface from 2050'.

Porous/permeable soils: No, sandy silty bentonitic soils.

Class I stream drainage: No

Mitigation:

Lined reserve pit

Adequate surface casing

Berms/dykes, re-routed drainage

Closed mud system

Off-site disposal of solids/liquids (in approved facility)

Other: \_\_\_\_\_

Comments: 2050' of surface casing cemented to surface adequate to protect freshwater zones.

**Soils/Vegetation/Land Use**

(possible concerns)

Steam crossings: No, crossings.

High erosion potential: No, moderate cut, up to 15.8' and moderate fill, up to 10.1' required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, 500'X270' location size required.

Damage to improvements: Slight

Conflict with existing land use/values: Slight

Mitigation

- Avoid improvements (topographic tolerance)
- Exception location requested
- Stockpile topsoil
- Stream Crossing Permit (other agency review)
- Reclaim unused part of wellsite if productive
- Special construction methods to enhance reclamation
- Other \_\_\_\_\_

Comments: Cuttings will be put in the lined reserve pit. Drilling fluids will be recycled. Completion pit fluids will be hauled to a commercial disposal or recycled. Pit contents will be allowed to dry in the pit and then buried. Access will use existing county road, #332 and existing oil field access road. A road will be built from this oil well access road into this location, about 4616'. No special concerns.

### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: None nearby.

Possibility of H2S: Yes

Size of rig/length of drilling time: Triple drilling rig/short 30 to 40 days drilling time.

Mitigation:

- Proper BOP equipment
- Topographic sound barriers
- H2S contingency and/or evacuation plan
- Special equipment/procedures requirements
- Other: \_\_\_\_\_

Comments: No concerns.

### Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified..

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: None identified.

Mitigation:

- Avoidance (topographic tolerance/exception)
- Other agency review (DFWP, federal agencies, DSL)
- Screening/fencing of pits, drillsite
- Other: \_\_\_\_\_

Comments: Private surface lands. No concerns.

**Historical/Cultural/Paleontological**

(possible concerns)

Proximity to known sites: None identified.

Mitigation

avoidance (topographic tolerance, location exception)

other agency review (SHPO, DSL, federal agencies)

Other: \_\_\_\_\_

Comments: Private surface lands. No concerns.

**Social/Economic**

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: No concerns

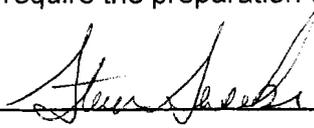
**Remarks or Special Concerns for this site**

Well is a 12,150' TD Red River Formation test.

**Summary: Evaluation of Impacts and Cumulative effects**

No long term impacts expected. Some short term surface impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): Steven Sasaki 

(title:) Chief Field Inspector

Date: October 18, 2007

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC  
website

(Name and Agency)

Richland County water wells

(subject discussed)

October 18, 2007  
(date)

If location was inspected before permit approval:

Inspection date: \_\_\_\_\_

Inspector: \_\_\_\_\_

Others present during inspection: \_\_\_\_\_

10/18/07

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